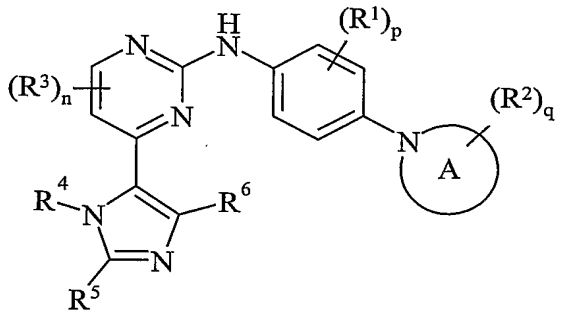
Claims

1. A compound of formula **(I)**:



(I)

wherein:

Ring A is a nitrogen linked 4-7 membered saturated ring which optionally contains an additional nitrogen, oxygen or sulphur atom; wherein if Ring A contains an additional nitrogen atom that nitrogen may be optionally substituted by R^7;

R^1 is halo, nitro, cyano, hydroxy, amino, carboxy, carbamoyl, mercapto, C_{1-6}alkyl, C_{1-6}alkoxy, C_{2-6}alkenyl or C_{2-6}alkynyl;

p is 0-4; wherein the values of R^1 may be the same or different;

R^2 is selected from halo, nitro, cyano, hydroxy, trifluoromethoxy, amino, carboxy, carbamoyl, mercapto, azido, sulphamoyl, C_{1-6}alkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, C_{1-6}alkanoyl, *N*-(C_{1-6}alkyl)carbamoyl, *N,N*-(C_{1-6}alkyl)$_2$carbamoyl, carbocyclyl-R^{34}-, heterocyclyl-R^{35}-, C_{1-6}alkylS(O)$_a$ wherein a is 0 to 2, C_{1-6}alkoxycarbonyl, *N*-(C_{1-6}alkyl)sulphamoyl or *N,N*-(C_{1-6}alkyl)$_2$sulphamoyl; wherein R^2 independently may be optionally substituted on carbon by one or more R^8; or R^2 is -NHR^9, -NR^{10}R^{11} or -O-R^{12};

q is 0-2; wherein the values of R^2 maybe the same or different;

R^3 is halo, nitro, cyano, hydroxy, trifluoromethyl, trifluoromethoxy, amino, carboxy, carbamoyl, mercapto, sulphamoyl, C_{1-3}alkyl, C_{2-3}alkenyl, C_{2-3}alkynyl, C_{1-3}alkoxy, C_{1-3}alkanoyl, *N*-(C_{1-3}alkyl)amino, *N,N*-(C_{1-3}alkyl)$_2$amino, C_{1-3}alkanoylamino, *N*-(C_{1-3}alkyl)carbamoyl, *N,N*-(C_{1-3}alkyl)$_2$carbamoyl, C_{1-3}alkylS(O)$_a$ wherein a is 0 to 2, *N*-(C_{1-3}alkyl)sulphamoyl or *N,N*-(C_{1-3}alkyl)$_2$sulphamoyl; wherein R^3 may be independently optionally substituted on carbon by one or more R^{13};

n is 0 to 2, wherein the values of R^3 may be the same or different;

R^4 is hydrogen, C_{1-6}alkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, carbocyclyl or a carbon-linked heterocyclyl; wherein R^4 may be optionally substituted on carbon by one or more R^{14}; and wherein if said heterocyclyl contains an -NH- moiety that nitrogen may be optionally substituted by a group selected from R^{15};

R^5 and **R^6** are independently selected from hydrogen, halo, nitro, cyano, hydroxy, trifluoromethoxy, amino, carboxy, carbamoyl, mercapto, sulphamoyl, C_{1-6}alkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, C_{1-6}alkoxy, C_{1-6}alkanoyl, C_{1-6}alkanoyloxy, *N*-(C_{1-6}alkyl)amino, *N,N*-(C_{1-6}alkyl)$_2$amino, C_{1-6}alkanoylamino, *N*-(C_{1-6}alkyl)carbamoyl, *N,N*-(C_{1-6}alkyl)$_2$carbamoyl, C_{1-6}alkylS(O)$_a$ wherein a is 0 to 2, C_{1-6}alkoxycarbonyl, *N*-(C_{1-6}alkyl)sulphamoyl, *N,N*-(C_{1-6}alkyl)$_2$sulphamoyl, C_{1-6}alkylsulphonylamino, C_{3-8}cycloalkyl or a 4-7 membered saturated heterocyclic group; wherein R^5 and R^6 independently of each other may be optionally substituted on carbon by one or more R^{16}; and wherein if a 4-7 membered saturated heterocyclic group contains an -NH- moiety that nitrogen may be optionally substituted by a group selected from R^{17};

R^7, **R^9**, **R^{10}**, **R^{11}** and **R^{12}** are independently selected from C_{1-6}alkyl, C_{1-6}alkanoyl, C_{1-6}alkylsulphonyl, C_{2-6}alkenylsulphonyl, C_{2-6}alkynylsulphonyl, C_{1-6}alkoxycarbonyl, carbamoyl, *N*-(C_{1-6}alkyl)carbamoyl, *N,N*-(C_{1-6}alkyl)carbamoyl, carbocyclyl, heterocyclyl, carbocyclyl-R^{18}- or heterocyclyl-R^{19}-; wherein R^7, R^9, R^{10}, R^{11} and R^{12} may be independently optionally substituted on carbon by a group selected from R^{20}; and wherein if said heterocyclyl contains an -NH- moiety that nitrogen may be optionally substituted by R^{21};

R^{14} and **R^{20}** are independently selected from halo, nitro, cyano, hydroxy, amino, carboxy, carbamoyl, mercapto, sulphamoyl, C_{1-6}alkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, C_{1-6}alkoxy, C_{2-6}alkenyloxy, C_{2-6}alkynyloxy, C_{1-6}alkoxyC_{1-6}alkoxy, C_{1-6}alkoxyC_{1-6}alkoxyC_{1-6}alkoxy, C_{1-6}alkanoyl, C_{1-6}alkanoyloxy, *N*-(C_{1-6}alkyl)amino, *N,N*-(C_{1-6}alkyl)$_2$amino, C_{1-6}alkanoylamino, *N*-(C_{1-6}alkyl)carbamoyl, *N,N*-(C_{1-6}alkyl)$_2$carbamoyl, C_{1-6}alkylS(O)$_a$ wherein a is 0 to 2, C_{1-6}alkoxycarbonyl, *N*-(C_{1-6}alkyl)sulphamoyl, *N,N*-(C_{1-6}alkyl)$_2$sulphamoyl, C_{1-6}alkylsulphonylamino, carbocyclyl, heterocyclyl, carbocyclylC_{1-6}alkyl-R^{22}-, heterocyclylC_{1-6}alkyl-R^{23}-, carbocyclyl-R^{24}- or heterocyclyl-R^{25}-; wherein R^{14} and R^{20} may be independently optionally substituted on carbon by one or more R^{26}; and wherein if said heterocyclyl contains an -NH- moiety that nitrogen may be optionally substituted by a group selected from R^{27};

$\mathbf{R^{18}}$, $\mathbf{R^{19}}$, $\mathbf{R^{22}}$, $\mathbf{R^{23}}$, $\mathbf{R^{24}}$, $\mathbf{R^{25}}$, $\mathbf{R^{34}}$ or $\mathbf{R^{35}}$ are independently selected from -O-, -N(R^{28})-, -C(O)-, -N(R^{29})C(O)-, -C(O)N(R^{30})-, -S(O)$_s$-, -SO_2N(R^{31})- or -N(R^{32})SO_2-; wherein $\mathbf{R^{28}}$, $\mathbf{R^{29}}$, $\mathbf{R^{30}}$, $\mathbf{R^{31}}$ and $\mathbf{R^{32}}$ are independently selected from hydrogen or C_{1-6}alkyl and **s** is 0-2;

$\mathbf{R^{15}}$, $\mathbf{R^{17}}$, $\mathbf{R^{21}}$ and $\mathbf{R^{27}}$ and are independently selected from C_{1-6}alkyl, C_{1-6}alkanoyl, C_{1-6}alkylsulphonyl, C_{1-6}alkoxycarbonyl, carbamoyl, *N*-(C_{1-6}alkyl)carbamoyl, *N,N*-(C_{1-6}alkyl)carbamoyl, benzyl, benzyloxycarbonyl, benzoyl and phenylsulphonyl; wherein R^{15}, R^{17}, R^{21} and R^{27} independently of each other may be optionally substituted on carbon by on or more R^{33}; and

$\mathbf{R^{8}}$, $\mathbf{R^{13}}$, $\mathbf{R^{16}}$, $\mathbf{R^{26}}$ and $\mathbf{R^{33}}$ are independently selected from halo, nitro, cyano, hydroxy, trifluoromethoxy, trifluoromethyl, amino, carboxy, carbamoyl, mercapto, sulphamoyl, methyl, ethyl, methoxy, ethoxy, acetyl, acetoxy, methylamino, ethylamino, dimethylamino, diethylamino, *N*-methyl-*N*-ethylamino, acetylamino, *N*-methylcarbamoyl, *N*-ethylcarbamoyl, *N,N*-dimethylcarbamoyl, *N,N*-diethylcarbamoyl, *N*-methyl-*N*-ethylcarbamoyl, methylthio, ethylthio, methylsulphinyl, ethylsulphinyl, mesyl, ethylsulphonyl, methoxycarbonyl, ethoxycarbonyl, *N*-methylsulphamoyl, *N*-ethylsulphamoyl, *N,N*-dimethylsulphamoyl, *N,N*-diethylsulphamoyl or *N*-methyl-*N*-ethylsulphamoyl;

or a pharmaceutically acceptable salt or an *in vivo* hydrolysable ester thereof.

2. A compound of formula **(I)** as claimed in claim 1 wherein:

Ring A is a nitrogen linked 4-7 membered saturated ring which optionally contains an additional nitrogen or oxygen atom; wherein if Ring A contains an additional nitrogen atom that nitrogen may be optionally substituted by R^7; wherein

R^7 is selected from C_{1-6}alkanoyl, C_{1-6}alkylsulphonyl, C_{2-6}alkenylsulphonyl, carbocyclyl-R^{18}- or heterocyclyl-R^{19}-; wherein R^7 may be independently optionally substituted on carbon by a group selected from R^{20}; and wherein if said heterocyclyl contains an -NH- moiety that nitrogen may be optionally substituted by R^{21};

R^{18} and R^{19} are -C(O)-;

R^{20} is selected from halo, cyano, hydroxy, C_{1-6}alkoxy, C_{2-6}alkynyloxy, C_{1-6}alkanoyloxy, *N,N*-(C_{1-6}alkyl)$_2$amino, C_{1-6}alkylS(O)$_a$ wherein a is 2 or heterocyclyl; wherein R^{20} may be optionally substituted on carbon by one or more R^{26};

R^{21} is C_{1-6}alkyl; and

R^{26} is hydroxy;

or a pharmaceutically acceptable salt or an *in vivo* hydrolysable ester thereof.

3. A compound of formula **(I)** as claimed in either claim 1 or claim 2 wherein R^1 is halo or C_{1-6}alkyl or a pharmaceutically acceptable salt or an *in vivo* hydrolysable ester thereof.

4. A compound pf formula **(I)** as claimed in any one of claims 1-3 wherein p is 0 or 1 or a pharmaceutically acceptable salt or an *in vivo* hydrolysable ester thereof.

5. A compound pf formula **(I)** as claimed in any one of claims 1-4 wherein:

R^2 is selected from hydroxy, amino, azido, C_{1-6}alkyl, *N*-(C_{1-6}alkyl)carbamoyl, *N,N*-(C_{1-6}alkyl)$_2$carbamoyl, carbocyclyl-R^{34}-, -NHR^9 or -O-R^{12};

R^9 and R^{12} are independently selected from C_{1-6}alkanoyl or C_{1-6}alkylsulphonyl; wherein R^9 and R^{12} may be independently optionally substituted on carbon by a group selected from R^{20};

R^{20} is hydroxy; and

R^{34} is -$N(R^{29})C(O)$-; wherein R^{29} is hydrogen;

or a pharmaceutically acceptable salt or an *in vivo* hydrolysable ester thereof.

6. A compound pf formula **(I)** as claimed in any one of claims 1-5 wherein R^3 is halo or a pharmaceutically acceptable salt or an *in vivo* hydrolysable ester thereof.

7. A compound pf formula **(I)** as claimed in any one of claims 1-6 wherein n is 0 or 1 or a pharmaceutically acceptable salt or an *in vivo* hydrolysable ester thereof.

8. A compound pf formula **(I)** as claimed in any one of claims 1-7 wherein:

R^4 is C_{1-6}alkyl or carbocyclyl; wherein R^4 may be optionally substituted on carbon by one or more R^{14}; wherein

R^{14} is carbocyclyl;

or a pharmaceutically acceptable salt or an *in vivo* hydrolysable ester thereof.

9. A compound of formula **(I)** as claimed in any one of claims 1-8 wherein:

R^5 and R^6 are independently selected from hydrogen or C_{1-6}alkyl; wherein R^5 and R^6 independently of each other may be optionally substituted on carbon by one or more R^{16}; wherein

R^{16} is selected from methoxy;

or a pharmaceutically acceptable salt or an *in vivo* hydrolysable ester thereof.

10. A compound of formula (I), as depicted in claim 1, wherein:

Ring A, R^2 and q together form piperazin-1-yl, morpholino, 4-mesylpiperazin-1-yl, 4-acetylpiperazin-1-yl, 4-(2-acetoxyacetyl)piperazin-1-yl, 4-(2-hydroxyacetyl)piperazin-1-yl, 4-(2-chloroacetyl)piperazin-1-yl, 4-(2-methoxyacetyl)piperazin-1-yl, (3-methoxypropanoyl)piperazin-1-yl, (3-hydroxy-3-methylbutanoyl)piperazin-1-yl, (3-hydroxy-2,2-dimethylpropanoyl)piperazin-1-yl, ((R)-3-methyl-2-hydroxybutanoyl)piperazin-1-yl, ((S)-3-methyl-2-hydroxybutanoyl)piperazin-1-yl, 4-(2-dimethylaminoacetyl)piperazin-1-yl, 4-[2-(dimethylamino)ethylsulphonyl]piperazin-1-yl, 4-[2-(methoxy)ethylsulphonyl]piperazin-1-yl, 4-[2-(hydroxy)ethylsulphonyl]piperazin-1-yl, 4-(cyclopropylcarbonyl)piperazin-1-yl, 4-(1-hydroxycyclopropylcarbonyl)piperazin-1-yl, 4-(1-cyanocyclopropylcarbonyl)piperazin-1-yl, 4-(2-hydroxy-2-methylpropanoyl)piperazin-1-yl, 4-((R)-2-hydroxypropanoyl)piperazin-1-yl, 4-((S)-2-hydroxypropanoyl)piperazin-1-yl, 4-((R)-2-methoxypropanoyl)piperazin-1-yl, 4-((S)-2-methoxypropanoyl)piperazin-1-yl, 4-((R)-tetrahydrofuran-2-ylcarbonyl)piperazin-1-yl, 4-((S)-tetrahydrofuran-2-ylcarbonyl)piperazin-1-yl, 4-(isobutyryl)piperazin-1-yl, 4-((R)-2-hydroxybutanoyl)piperazin-1-yl, 4-((S)-2- hydroxybutanoyl)piperazin-1-yl, (R)-3-acetylaminopyrrolidin-1-yl, (S)-3-acetylaminopyrrolidin-1-yl, (R)-2-(cyclopropylaminocarbonyl)pyrrolidin-1-yl, (R)-2-(*N*-methylcarbamoyl)pyrrolidin-1-yl, (S)-2-(*N,N*-dimethylcarbamoyl)pyrrolidin-1-yl, 4-(ethenylsulphonyl)piperazin-1-yl, 4-[2-(2-propyn-1-yloxy)acetyl]piperazin-1-yl, 4-(tetrahydrofuran-3-ylcarbonyl)piperazin-1-yl, 4-(3-dimethylaminopropanoyl)piperazin-1-yl, 4-[2-(*N*-methyl-*N*-hydroxymethylamino)acetyl]piperazin-1-yl, 4-[3-hydroxy-2-(hydroxymethyl)propanoyl]piperazin-1-yl, 4-[2-(1,2,3,4-tetrazol-1-yl)acetyl]piperazin-1-yl, 4-[2-(1,2,3,4-tetrazol-5-yl)acetyl]piperazin-1-yl, 4-(1-methyl-L-prolyl)piperazin-1-yl, 4-[2-(mesyl)acetyl]piperazin-1-yl, 4-(2,2-difluoroacetyl)piperazin-1-yl, 4-[2-(pyrrolidin-1-yl)acetyl]piperazin-1-yl, 4-[2-(morpholino)acetyl]piperazin-1-yl, 4-[2-(diethylamino)acetyl]piperazin-1-yl, 4-(propionyl)piperazin-1-yl, 4-(3-hydroxypropionyl)piperazin-1-yl, 4-[2-(azetidin-1-yl)acetyl]piperazin-1-yl, (R)-3-aminopyrrolidin-1-yl, (S)-3-aminopyrrolidin-1-yl, (3*R*,5*S*)-4-acetyl-3,5-dimethylpiperazin-1-yl, (2*S*,5*R*)-4-acetyl-2,5-dimethylpiperazin-1-yl, (2*RS*,6*SR*)-2,6-dimethylmorpholin-4-yl]phenyl, 3-hydroxyazetidin-1-yl, 3-acetylaminoazetidin-1-yl, 3-(2-hydroxyacetylamino)azetidin-1-yl, 3-mesylaminoazetidin-1-yl, 3-mesyloxyazetidin-1-yl, 3-

azidoazetidin-1-yl, 3-aminoazetidin-1-yl, (3*R*)-3-{[(2*S*)-2-hydroxypropanoyl]amino}pyrrolidin-1-yl, (3*S*)-3-{[(2*S*)-2-hydroxypropanoyl]amino}pyrrolidin-1-yl, (3*S*)-3-(glycoloylamino)pyrrolidin-1-yl and (3*R*)-3-(glycoloylamino)pyrrolidin-1-yl;

R^1 is fluoro, chloro or methyl;

p is 0 or 1;

R^2 is selected from hydroxy, amino, azido, methyl, *N*-methylcarbamoyl, *N,N*-dimethylcarbamoyl, acetamido, {[(2*S*)-2-hydroxypropanoyl]amino}, glycoloylamino, mesylamino, 2-hydroxyacetamido, mesyloxy or *N*-cyclopropylcarbamoyl.

q is 0-2; wherein the values of R^2 maybe the same or different;

R^3 is 5-fluoro or 5-chloro;

n is 0 or 1;

R^4 is ethyl, isopropyl, isobutyl, cyclobutyl or cyclopropylmethyl;

R^5 and R^6 are independently selected from hydrogen, methyl, ethyl, methoxymethyl, propyl;

or a pharmaceutically acceptable salt or an *in vivo* hydrolysable ester thereof.

11. A compound of formula **(I)**, as depicted in claim 1, selected from:

2-{4-[4-(2-hydroxyacetyl)piperazin-1-yl]anilino}-4-(1-isopropyl-2-methyl-1*H*-imidazol-5-yl)-5-fluoropyrimidine hydrochloride;

2-{4-[4-(2-hydroxyacetyl)piperazin-1-yl]anilino}-4-(1-isopropyl-2-methyl-1*H*-imidazol-5-yl)pyrimidine;

(2*S*)-1-[4-(4-{[5-fluoro-4-(1-isopropyl-2-methyl-1*H*-imidazol-5-yl)pyrimidin-2-yl]amino}phenyl)piperazin-1-yl]-1-oxopropan-2-ol;

2-[4-(morpholino)anilino]-4-(1-isopropyl-2-methyl-1*H*-imidazol-5-yl)-5-fluoropyrimidine

2-{4-[4-(acetyl)piperazin-1-yl]anilino}-4-(1-isopropyl-2-methyl-1*H*-imidazol-5-yl)-5-fluoropyrimidine;

2-[4-(4-acetylpiperazin-1-yl)anilino]-4-(1-isopropyl-2-methyl-1*H*-imidazol-5-yl)pyrimidine;

5-fluoro-4-(1-isopropyl-2-methyl-1*H*-imidazol-5-yl)-*N*-{4-[4-(methoxyacetyl)piperazin-1-yl]phenyl}pyrimidin-2-amine;

N-[4-(4-acetylpiperazin-1-yl)-3-fluorophenyl]-5-fluoro-4-(1-isopropyl-2-methyl-1*H*-imidazol-5-yl)pyrimidin-2-amine;

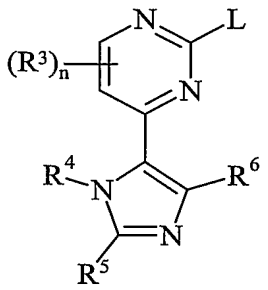
N-[4-(4-acetylpiperazin-1-yl)-3-fluorophenyl]-4-(1-isopropyl-2-methyl-1*H*-imidazol-5-yl)pyrimidin-2-amine; and

(2*R*)-1-[4-(4-{[5-fluoro-4-(1-isopropyl-2-methyl-1*H*-imidazol-5-yl)pyrimidin-2-yl]amino}phenyl)piperazin-1-yl]-1-oxopropan-2-ol;

or a pharmaceutically acceptable salt or an *in vivo* hydrolysable ester thereof.

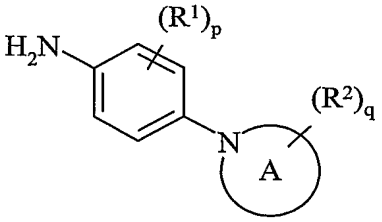
12. A process for preparing a compound of formula **(I)**, as claimed in any one of claims 1-11, or a pharmaceutically acceptable salt or an *in vivo* hydrolysable ester thereof, which process, wherein variable groups are, unless otherwise specified, as defined claim 1, comprises of:

Process a) reaction of a pyrimidine of formula **(II)**:



(II)

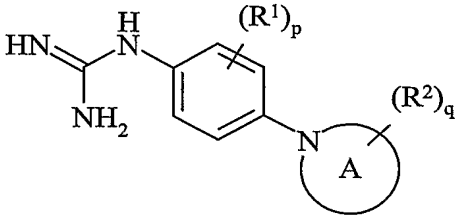
wherein L is a displaceable group; with an aniline of formula **(III)**:



(III)

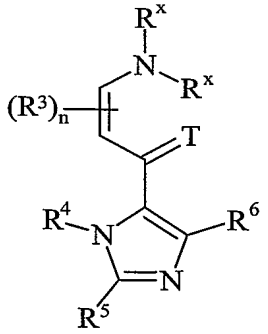
or

Process b) reacting a compound of formula **(IV)**:



(IV)

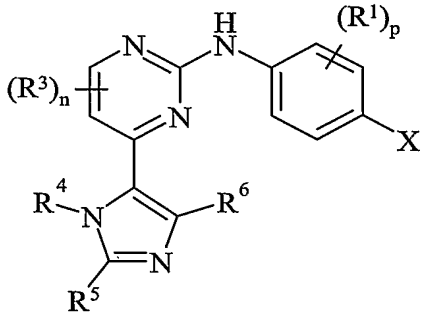
with a compound of formula **(V)**:



(V)

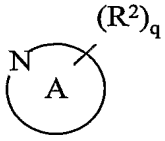
wherein T is O or S; R^x may be the same or different and is selected from C_{1-6}alkyl; or

Process c) reacting a pyrimidine of formula **(VI)**:



(VI)

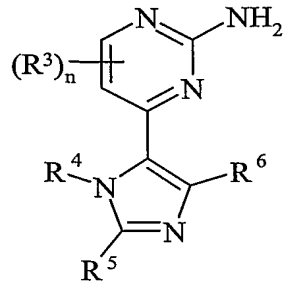
wherein X is a displaceable group; with a heterocyclyl of formula **(VII)**:



(VII)

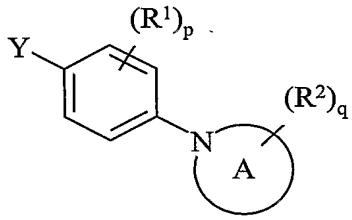
or

Process d) for compounds of formula **(I)**; reacting a pyrimidine of formula **(VIII)**



(VIII)

with a compound of formula **(IX)**:



(IX)

where Y is a displaceable group;

and thereafter if necessary:

i) converting a compound of the formula **(I)** into another compound of the formula **(I)**;

ii) removing any protecting groups;

iii) forming a pharmaceutically acceptable salt or *in vivo* hydrolysable ester.

13. A pharmaceutical composition which comprises a compound of formula **(I)** or a pharmaceutically acceptable salt or *in vivo* hydrolysable ester thereof, as claimed in any one of claims 1-11, in association with a pharmaceutically-acceptable diluent or carrier.

14. A compound of the formula **(I)**, or a pharmaceutically acceptable salt or *in vivo* hydrolysable ester thereof, as claimed in any one of claims 1-11, for use in a method of treatment of the human or animal body by therapy.

15. A compound of the formula **(I)**, or a pharmaceutically acceptable salt or *in vivo* hydrolysable ester thereof, as claimed in any one of claims 1-11, for use as a medicament.

16. The use of a compound of the formula **(I)**, or a pharmaceutically acceptable salt or *in vivo* hydrolysable ester thereof, as claimed in any one of claims 1-11, in the manufacture of a

medicament for use in the production of a cell cycle inhibitory, anti-cell-proliferation, effect in a warm-blooded animal such as man.

17. The use of a compound of the formula **(I)**, or a pharmaceutically acceptable salt or *in vivo* hydrolysable ester thereof, as claimed in any one of claims 1-11, in the manufacture of a medicament for use in the treatment of cancers, solid tumours and leukaemias, fibroproliferative and differentiative disorders, psoriasis, rheumatoid arthritis, Kaposi's sarcoma, haemangioma, acute and chronic nephropathies, atheroma, atherosclerosis, arterial restenosis, autoimmune diseases, acute and chronic inflammation, bone diseases and ocular diseases with retinal vessel proliferation, particularly in the treatment of cancers.

18. The use of a compound of the formula **(I)**, or a pharmaceutically acceptable salt or *in vivo* hydrolysable ester thereof, as claimed in any one of claims 1-11, in the manufacture of a medicament for use in the treatment of cancer.

19 The use according to claim 18 wherein said cancer is leukaemia, breast cancer, lung cancer, colon cancer, rectal cancer, stomach cancer, prostate cancer, bladder cancer, cancer of the pancreas, ovarian cancer, liver cancer, kidney cancer, skin cancer and cancer of the vulva.

20. The use of a compound of the formula **(I)**, or a pharmaceutically acceptable salt or *in vivo* hydrolysable ester thereof, as claimed in any one of claims 1-11, in the manufacture of a medicament for use in the production of a CDK inhibitory effect.

21. A method for producing a cell cycle inhibitory, anti-cell-proliferation, effect in a warm-blooded animal, such as man, in need of such treatment which comprises administering to said animal an effective amount of a compound of formula **(I)**, as claimed in any one of claims 1-11.

22. A method of treating cancers, solid tumours and leukaemias, fibroproliferative and differentiative disorders, psoriasis, rheumatoid arthritis, Kaposi's sarcoma, haemangioma, acute and chronic nephropathies, atheroma, atherosclerosis, arterial restenosis, autoimmune diseases, acute and chronic inflammation, bone diseases and ocular diseases with retinal vessel proliferation, in a warm-blooded animal, such as man, in need of such treatment which

comprises administering to said animal an effective amount of a compound of formula **(I)** or a pharmaceutically acceptable salt or *in vivo* hydrolysable ester thereof, as claimed in any one of claims 1-11.

23. A method of treating cancer in a warm-blooded animal, such as man, in need of such treatment which comprises administering to said animal an effective amount of a compound of formula **(I)** or a pharmaceutically acceptable salt or in vivo hydrolysable ester thereof, as claimed in any one of claims 1-11.

24 A method as claimed in claim 23 wherein said cancer is leukaemia, breast cancer, lung cancer, colon cancer, rectal cancer, stomach cancer, prostate cancer, bladder cancer, cancer of the pancreas, ovarian cancer, liver cancer, kidney cancer, skin cancer and cancer of the vulva.

25. A method of producing a CDK inhibitory effect in a warm-blooded animal, such as man, in need of such treatment which comprises administering to said animal an effective amount of a compound of formula **(I)** or a pharmaceutically acceptable salt or in vivo hydrolysable ester thereof, as claimed in any one of claims 1-11.

26. A pharmaceutical composition which comprises a compound of the formula **(I)**, or a pharmaceutically acceptable salt or *in vivo* hydrolysable ester thereof, as claimed in any one of claims 1-11, in association with a pharmaceutically-acceptable diluent or carrier for use in the production of a cell cycle inhibitory, anti-cell-proliferation, effect in a warm-blooded animal such as man.

27. A pharmaceutical composition which comprises a compound of the formula **(I)**, or a pharmaceutically acceptable salt or *in vivo* hydrolysable ester thereof, as claimed in any one of claims 1-11, in association with a pharmaceutically-acceptable diluent or carrier for use in the treatment of cancers, solid tumours and leukaemias, fibroproliferative and differentiative disorders, psoriasis, rheumatoid arthritis, Kaposi's sarcoma, haemangioma, acute and chronic nephropathies, atheroma, atherosclerosis, arterial restenosis, autoimmune diseases, acute and chronic inflammation, bone diseases and ocular diseases with retinal vessel proliferation, in a warm-blooded animal such as man.

28. A pharmaceutical composition which comprises a compound of the formula **(I)**, or a pharmaceutically acceptable salt or *in vivo* hydrolysable ester thereof, as claimed in any one of claims 1-11, in association with a pharmaceutically-acceptable diluent or carrier for use in the treatment of cancer in a warm-blooded animal such as man.

29 A pharmaceutical composition as claimed in claim 28 wherein said cancer is leukaemia, breast cancer, lung cancer, colon cancer, rectal cancer, stomach cancer, prostate cancer, bladder cancer, cancer of the pancreas, ovarian cancer, liver cancer, kidney cancer, skin cancer and cancer of the vulva.

30. A pharmaceutical composition which comprises a compound of the formula **(I)**, or a pharmaceutically acceptable salt or *in vivo* hydrolysable ester thereof, as claimed in any one of claims 1-11, in association with a pharmaceutically-acceptable diluent or carrier for use in the production of a CDK inhibitory effect in a warm-blooded animal such as man.